UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,219	12/16/2003	David Elie-Dit-Cosaque	139156USNP	7696

24587   7590   01/28/2008
ALCATEL LUCENT
INTELLECTUAL PROPERTY & STANDARDS
3400 W. PLANO PARKWAY, MS LEGL2
PLANO, TX 75075

EXAMINER
SHAH, CHIRAG G

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
01/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>10/737,219</td><td>ELIE-DIT-COSAQUE ET AL.</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td></tr>
<tr><td></td><td>Chirag G. Shah</td><td>2616</td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>07 November 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____.

         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 11/5/07 have been fully considered but they are not

persuasive. Applicant argues that Benedetto reference merely discloses that bridges significantly

reduce the aging time associated with their filtering databases. As such Applicant argues that the

office action has failed to prove that the Benedetto reference discloses the elements of claim 1,

inter alia, of, "in the provider edge bridges coupled to a customer LAN segment: receiving

topology change notifications (TCNs) from the customer network; in response to receiving a

TCN, monitoring end host addresses in data units received from the customer network for a

predetermined time period; flushing an address memory file associating end host addresses with

ports of the provider edge bridge in response to detecting an end host address indicating that a

topology change has occurred in one or more of the customer LAN segments affecting paths of

data units through the provider network."

Examiner respectfully disagrees and redirects Applicant to the Benedetto reference.

Benedetto clearly established in fig. 2 and paragraph 0092 that in the provider edge bridges of a

switch 227 is coupled to a customer LAN segment 214 of the switch 227 detecting a change in

the active topology and generating a BPDU having a TCN. As further established in paragraphs

0019, 0092, and 0113 in response to receiving a TCN, the switch monitors for the BPDU TCN

on each address port and the TCN-PDU is transmitted with an aging time set to a predetermined

time of 15 seconds. Additionally, the step of flushing an address memory is address in

Benedetto's paragraph 0019 where upon the expiration of the predefined default time of 15

seconds, the memory database containing topology change message is quickly discarded/flushed.

With respect to Applicants argument that Benedetto references indicates that the bridge will only discard stored BPDU information if a bridge stops receiving BPDU messages on a given port for a maximum age value threshold. Examiner respectfully does not see the objective of the specific argument. However, Benedetto clearly discloses in Benedetto's paragraph 0019 where upon the expiration of the predefined default time of 15 seconds, the memory database containing topology change message is quickly discarded/flushed. This addresses the claimed limitation. Therefore, based on the response to the argument and addressed claimed limitations, the argument claims respectfully remain unpatentable over the cited art.

2.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-20 rejected under 35 U.S.C. 102(e) as being anticipated by Benedetto et al (US

2005/0259597), hereinafter Benedetto.

Regarding claims 1 and 11, Benedetto discloses in **fig. 2** of a method and a provider edge

bridge **[bridge/switches exchange bridge protocol data units (BPDU), see paragraph 0028,**

0056 and 0092 and fig.2] for communication between two or more customer local area network

(LAN) segments **[plurality of LANs 202-214, see fig. 2]** through a provider network **[meshed**

computer network 200, see fig. 2], with each customer LAN segment including a customer

edge bridge **[switch 218-227, see fig. 2]**, and where the provider network **[meshed computer**

network 200, see fig. 2], has one or more provider edge bridges **[i.e., switch 218, see fig 2]**

coupled to the customer edge bridges **[see figs. 2 and 7]**, comprising the steps of:

in the provider edge bridges **[i.e., switch 227, see fig 2]** coupled to a customer LAN

segment **[i.e., LAN segment 214, see fig. 2]**:

receiving topology change notifications (TCNs) from the customer network **[see**

paragraph 0092, switch 227 detects a change in active topology and generates an BPDU

having a TCN];

in response to receiving a TCN, monitoring end host addresses in data units received

from the customer network for a predetermined time period **[in response to receiving a TCN,**

the switch monitors for BPDU TCN on each address port and the TCN-PDU is transmitted

with an aging time set to a predetermined time of fifteen seconds, paragraph 0019, 0092

and 0113];

flushing an address memory file associating end host addresses with ports of the provider

edge bridge in response to detecting an end host address indicating that a topology change has

occurred in one or more of the customer LAN segments affecting paths of data units through the

provider network **[upon the expiration of the predefined default time of 15 seconds, the**

memory database containing topology change message is quickly discarded/flushed, see

paragraph 0019].

Regarding claims 8 and 18, Benedetto discloses in **fig. 2** a method and a communication

between two or more customer local area network (LAN) segments **[plurality of LANs 202-214,**

see fig. 2] through a provider network **[meshed computer network 200, see fig. 2]**, with each

customer LAN segment including a customer edge bridge **[switch 218-227, see fig. 2]**, and

where the provider network **[meshed computer network 200, see fig. 2]**, has one or more

provider edge bridges **[i.e., switch 218, see fig 2]** coupled to the customer edge bridges **[see figs.**

2 and 7], comprising the steps of:

in each edge bridge [i.e., switch 227, see fig 2] of a LAN segment [i.e., LAN segment

214, see fig. 2]:having a multi-homed connection to the provider network [see fig. 2]:

flagging topology change notifications (TCNs) which relate to topology changes

affecting paths of data units through the provider network [see col. 0019, where TCN-PDU is

set with a flag]; and

in each of the provider edge bridges [switches 218-227] coupled to a customer LAN

segment [plurality of LANs 202-214, see fig. 2]:

receiving topology change notifications (TCNs) from the customer network [see

paragraph 0019];

in response to receiving a flagged TCN, flushing an address memory file associating end

host addresses with ports of the provider edge bridge [upon the expiration of the predefined

default time of 15 seconds, the memory database containing topology change message is

quickly discarded/flushed, see paragraph 0019]; and

in response to receiving an unflagged TCN, passing the TCN without flushing an address

memory file [see paragraph 0108, if the root of spanning tree instance in the region is

notified or otherwise detects a topology change, it preferably generates and sends a

conventional, untagged TCN, which is passed without flushing].

Regarding claims 2 and 12, Benedetto suggests in paragraph 0019 wherein said flushing

step comprises the step of flushing the address memory file [filtering database, see fig. 0019] if

the end host address of a data unit received in the predetermined time period [default time, see

fig. 0019] is in conflict with information in the memory address file [to prevent bridges from

distributing messages based upon incorrect address information, bridges quickly age-out and discard the "old" information in their filtering databases].

Regarding claims 3 and 13, Benedetto suggests in paragraph 0019 wherein said flushing step comprises the step of flushing the address memory file [filtering database, see fig. 0019] if a predetermined number of end host addresses of data units received in the predetermined time period is not found in the address memory file [to prevent bridges from distributing messages based upon incorrect address information, bridges quickly age-out and discard the "old" information in their filtering databases].

Regarding claims 4 and 14, Benedetto suggests in paragraph 0019 wherein said flushing step comprises the step of flushing the address memory file [filtering database, see fig. 0019] if the end host address of a data unit received in the predetermined time period is not found in the address memory file [to prevent bridges from distributing messages based upon incorrect address information, bridges quickly age-out and discard the "old" information in their filtering databases] and if the end host address is found an address memory file [filtering database, see fig. 0019] of another bridge in the provider network.

Regarding claims 5 and 15, Benedetto suggests in paragraph 0019 further comprising the step of storing a list of end host addresses that are received during the predetermined time period and are not found in the address memory file [filtering database, see fig. 0019].

Regarding claims 6 and 16, Benedetto discloses in paragraphs 0031, 0053, and 0059 wherein said end host address are media access control (MAC) addresses.

Regarding claims 7 and 17, Benedetto discloses in paragraphs 0007, 0012, 0018, 0024, and 0037 wherein the data units are frames.

Regarding claim 9, Benedetto discloses in paragraph 0019 wherein said flagging step comprises the step of flagging TCNs which relate to a blocked path coupled to the edge bridge.

Regarding claim 10, Benedetto discloses in paragraph 0019 wherein said flagging step comprises the step of flagging TCNs generated locally the edge bridge.

Regarding claim 19, Benedetto discloses in paragraph 0019 wherein said customer edge bridges of a LAN segment having a multi-homed connection flag TCNs which relate to a blocked path coupled to the edge bridge.

Regarding claim 20, Benedetto discloses in paragraph 0019 wherein said customer edge bridges of a LAN segment having a multi-homed connection flag TCNs generated locally the customer edge bridge

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The

examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynn Feild can be reached on 571-272-2092. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cgs
January 22, 2008

CHIRAG G. SHAH
PRIMARY PATENT EXAMINER

Chirag G. Shah
Primary Examiner, 2616